

***Response to Amendment***

1. The Declaration under 37 CFR 1.132 filed on **7/1/2010** is sufficient to overcome the rejection of claims 1, 9, 13, 19 and 21-36 based upon 35 USC 112, first paragraph.
2. The Declaration under 37 CFR 1.132 filed **04/30/2010** is sufficient to overcome the rejection of claim claims 1, 9, 13, 19 and 21-36 based upon 35 USC 112, first paragraph.

***Response to Arguments***

3. Applicant's arguments, see Remarks, filed on 11/24/2009, with respect to **Minoda (JP 2002-302795)**, wherein Applicant argues that the tensile strength carried out by the present invention means the vertical tensile strength as clear from the paragraph # 83 in the publication of the present application. Meanwhile, the tensile strength disclosed in Minoda et al. ('795) is carried out by the horizontal tensile strength (See paragraph #34 and figure 3 of reference). Applicant further argues that one of the characteristic feature elements in claims 1 and 9 each is such that the diameter of innumerable pores made on the anodic oxidation coating is from between 25 nm to about 90 nm, and, by contrast, Minoda (795) is negative in making the diameter of pores less than 200 nm from the recognition describing that if the open diameter W of the holes (4) is less than 200 nm, a laminating synthetic resin material such a resin, or the like fluidizing at the time of thermal adhesion is difficult to flow into the holes and the fine pores (5) made inside the holes, and, as a result, it becomes difficult to exhibit a sufficient anchor effect (See paragraph # 18 in reference). With respect to **Iwasaki et al. (US 2002/0109134)**, Applicant further argues that Iwasaki primarily concern the nanostructure of porous aluminum and not a composite material. Applicant argues that Iwasaki et al. discloses plural kinds of pores are at least two kinds of pores (3,5) having different diameters, and pore (5) have a smaller diameter than that of the pore (3), wherein pores are regularly formed at predetermined positions in the anodic porous alumina, thus, the structure of the anodic oxidation coating of the instant invention as cited in claim 1 is clearly structurally

different from that of the nanostructure disclosed in Iwasaki et al. Applicant argues that Iwasaki prepares the nanostructure having plural kinds of pores regularly formed by three or four steps, thus, the pores produced are not innumerable. On the other hand, claim 1 cites the innumerable pore of the anodic oxidation coating can be formed irregularly only by a single anodizing treatment. With respect to **Burnham (US 2,647,079)**, Applicant argues that Burnham is not taken interest in the diameter size of the pores of the porous aluminum oxide film, and therefore such a technical thought that the diameter size of the pores has to be set in the range of between 25-90 nm as cited in claim 1 for obtaining the foregoing strong horizontal and vertical tensile strength which cannot be obvious in light of Burnham. Applicant further argues that claim 1 cites resin, polybutylene terephthalate (PBT), polyethylene (PE), polypropylene (PP), ABS, PPS and polyacetal (POM), nowhere disclosed or suggested by Burnham. Applicant argues that the selected resin has an elastic modulus which is able to absorb the linear expansion between them, a water resisting property and a chemical resisting property, wherein such a selected resin is neither obvious over nor anticipated by Burnham.

4. Applicant's all arguments have been fully considered and are persuasive.
5. Applicant's arguments, see Remarks, filed on 11/24/2009, with respect to rejection of claims under 35 USC 112, first paragraph, written description requirement, wherein Applicant argues that the tensile strength carried out by the present invention means the vertical tensile strength as clear from the paragraph # 83 in the publication of the present application. Applicant further enclosed a revised declaration under 37 CFR § 1.132 which shows that a force gauge was pulled to a force of 20 to at least 50 Kgf/cm<sup>2</sup> during which no breakage occurred, wherein the force gauge was pulled upwards in the vertical tensile direction as shown in photo 4, and the indicator needle indicated 50 Kgf/cm<sup>2</sup> which is the threshold value of the graduation.
6. Applicant's arguments are fully considered and found persuasive because paragraph # 83 of the PG Pub of instant application describes that "...an inserting rod of

a tensile tester was screwed into the cylindrical stud, and from this state, the tensile tester was **pulled upwardly** and when the graduations of the tensile tester was observed...”; and the revised declaration under 37 CFR § 1.132 clearly describes that “...determining the vertical tensile strength, particularly the tensile strength when a cylindrical stud is pulled upward or vertically...”, thus, these provide proper antecedent basis for the claimed limitation within the disclosure of the instant application, and therefore, rejection of claims under 35 USC 112, first paragraph has been withdrawn.

7. Furthermore, the declaration under 37 CFR 1.132 filed on 4/30/2010 was insufficient to overcome the rejection of claims under 35 USC 112, first paragraph, as being failed to have sufficient support for the unit of the tensile strength in the instant disclosure, as set forth in the last office action because the declaration submitted with NPL document “Testing methods for tensile strength of adhesive bonds”, wherein such document was published in Japanese language and Applicant failed to provide a legible translation copy of the NPL document. However, Applicant filed the response with legible translation copy of NPL document “Testing methods for tensile strength of adhesive bonds”, and, therefore, rejection of claims under 35 USC 112, first paragraph has been withdrawn.

#### **EXAMINER’S AMENDMENT**

8. An examiner’s amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner’s amendment was given in a telephone interview with **James Armstrong** (Applicant’s representative) on **7/15/2010**.

The application has been amended as follows:

Please amend claims 1, 9, 19, 21, by deleting limitation of "a vertical tensile strength from between 20 Kgf/cm<sup>2</sup> to at least 50 Kgf/cm<sup>2</sup>" and inserting limitation of - - a vertical tensile strength from between 20 Kgf/cm<sup>2</sup> to 45 Kgf/cm<sup>2</sup> - -.

***Allowable Subject Matter***

9. Claims 1, 9, 13, 19 and 21-36 are allowed.
10. The following is an examiner's statement of reasons for allowance:
11. **Naritomi et al. (US 2006/0257624)** discloses an invention related to a composite of aluminum alloy and resin composition, however, this reference could not be qualified as a prior art. Furthermore, the closet prior art, **Minoda (JP 2002-302795)** as discussed above, fails to teach or suggest claimed limitations of a composite, such as, synthetic resin selected from group consisting of polybutylene terephthalate (PBT), polyethylene (PE), polypropylene (PP), ABS and PPS, and polyacetal (POM) ; and vertical tensile strength of the composite from between 20 Kgf/cm<sup>2</sup> to 45 Kgf/cm<sup>2</sup>, as set forth in the claims of the instant application.
12. None of the above references, taken alone or in combination, inter alia teaches or fairly suggests the limitations **of a composite of a worked aluminum material and a synthetic resin molding, wherein resin selected from the group consisting of polybutylene terephthalate (PBT), polyethylene (PE), polypropylene (PP), ABS and PPS, and polyacetal (POM)**, so constructed that the synthetic resin molding is coupled with an anodic oxidation coating....and bonded together over a part or the whole surfaces thereof as to **have a vertical tensile strength from between 20 Kgf/cm<sup>2</sup> to 45 Kgf/cm<sup>2</sup>**, as set forth in the claims of the instant application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIMPLE N. BODAWALA whose telephone number is (571)272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PHILLIP C. TUCKER can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. N. B./

Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791